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(71)Applicant : NEC CORP

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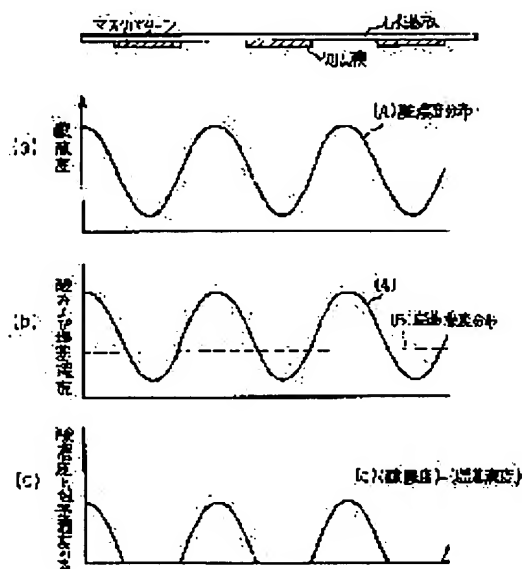
(72)Inventor : KASAMA KUNIIHIKO

(54) RESIST MATERIAL

(57)Abstract:

PURPOSE: To provide a resist material capable of preventing the lowering of dimensional controllability of a chemical amplification system resist near the resolution limits and the generation of resist scums.

CONSTITUTION: An organic material which acts as a base on acid formed by an acid generating agent, such as aniline, pyridine, imidazole or ammonium derivatives is added to the conventional chemical amplification system resist by a trace quantity or on the order of μ mole/gr. to constitute a resist material. That is to say, when the conventional resist is given photoirradiation through a mask pattern, the concentration distribution like that as shown in the figure (a) is obtained. When a trace quantity of basic organic substances is added to the conventional resist as shown in the figure (b), the distribution of the difference between the acid concentration and the base concentration is obtained as shown in the figure (c). Even if light contrast of the mask pattern near the resolution limits is lowered, since the acid concentration distribution in a mask edge part is made steep, dimensional controllability is improved. Further, since acid formed in the mask light shielding part by light interference is completely neutralized by a basic material, a problem of resist scums is dissolved.



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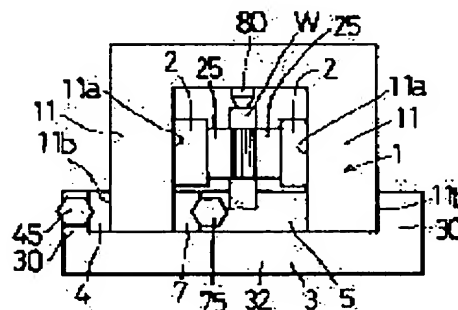
(72)Inventor : NISHIOKA TAKASHI

(54) FORM-ROLLING DEVICE PROVIDED WITH TIE-BAR

(57)Abstract:

PURPOSE: To provide a form-rolling device with a tie-bar in which the opening of opposing frames is restrained when a material is form-rolled and by which the accuracy of form-rolling is further improved.

CONSTITUTION: This device is provided with a main body 1 having a couple of opposing frames 11, a movable frame having a form-rolling die 25 and a tie-bar 3 by which expanding of distance between opposing frames is prevented. A main wedge part 4 is inserted between the rear surfaces 11b of opposing frames 11 and the end part 30 of tie-bar 3. A spacer 5 is arranged between the opposing surfaces 11a of couple of opposing frames 11. A sub wedge part 7 is inserted between the opposing surfaces 11a of opposing frames 11 and the end surface of spacer 5. Consequently, the spacer 5 is deformed by pressure and the tie-rod 3 is deformed by tensile force.



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